

What is claimed is:

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1. A method of operating a gas phase growth system comprising:
a processing stage, in which an organometallic complex is vaporized by a vaporizer, and the vaporized organometallic complex is fed into a reaction chamber through a gas line communicating the vaporizer with the reaction chamber, whereby a film is formed on a substrate in the reaction chamber; and
a stabilizer feeding stage, in which a stabilizer for the organometallic complex is fed in a gaseous state into a gas area of the vaporizer or into the gas line, where the gas area is an area in which the organometallic complex has been vaporized and exists in a gaseous state during normal operation of the vaporizer, wherein the stabilizer feeding stage is executed when the vaporizer is not vaporizing the organometallic complex.

2. The method according to claim 1, wherein the method further comprises a pre-purging stage, in which the reaction chamber and the gas line are purged, wherein the pre-purging stage is executed before the processing stage, and the stabilizer feeding stage is executed when the pre-purging stage is executing.

3. The method according to claim 1, wherein the method further comprises a post-purging stage, in which the reaction chamber and the gas line are purged, wherein the post-purging stage is executed after the processing stage, and the stabilizer feeding stage is executed when the post-purging stage is executing.

4. The method according to claim 1, wherein the organometallic complex is Cu (hfac) TMVS and the stabilizer is TMVS.

5. A gas phase growth system comprising:
a reaction vessel defining a reaction chamber in which a substrate is processed;
a vaporizer that vaporizes an organometallic complex;
a gas line communicating the vaporizer with the reaction chamber to feed the vaporized organometallic complex into the

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reaction chamber; and

a stabilizer feeder that feeds a stabilizer for the organometallic complex in a gaseous state into a gas area of the vaporizer or into the gas line, where the gas area is an area in which organometallic complex has been vaporized and exists in a gaseous state during normal operation of the vaporizer.

6. A vaporizer for vaporizing an organometallic complex to be fed into a reaction chamber of a gas phase growth system, said vaporizer comprising:

→ a body with a vaporizing chamber;

a first path through which the organometallic complex is fed into the vaporizing chamber; and

a second path through which a stabilizer for said organometallic complex is fed into a gas area of the body in a gaseous state, where the gas area is an area in which organometallic complex has been vaporized and exists in a gaseous state during normal operation of the vaporizer.

7. The vaporizer according to claim 6, wherein the second path is opened at the gas area within the vaporizing chamber.

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